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ABSTRACT

Three bases or decision-rules for selecting and organizing content for teacher preparation programs are discussed. In order to be considered as viable content for a teacher preparation program, the concept, principle, or process must be: (1) related to student growth; (2) a necessary curricular component; and (3) logically explained by a theory of social science. Examples are presented to illustrate the nature of content resulting from each decision-rule. The three rules are neither exhaustive nor exclusive, each having topics overlapping into the other areas; this overlap is logical given the interaction of theory and empirical evidence used in the processes. A consolidation of the three bases represents the most desired content structure of pedagogy. (CB)

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Empirical, Experiential, and Theoretical Perspectives Affecting the Development of a Content Structure of Pedagogy

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Historically teacher education has attempted to meet the evolving goal of providing teachers with increasing amounts of subject matter in academic disciplines as well as more pedagogical content. The oft cited concern that emphasis of teacher preparation programs on the study of teaching reduces emphasis on coursework in the arts and sciences cannot be supported by historical fact (Haberman, 1984). For example, the first normal school originating in 1823 in Vermont provided a three year curriculum. The initial two years of this course of study centered on coursework in arts and science with the third year curriculum focusing on teaching. During the next 30 years, some 15 to 20 additional normal schools were established with varying curriculum requirements; however, their focus was on academic coursework with little or no emphasis on pedagogy. Given the prevalent teaching practices which fostered rote learning during that period, it is not difficult to understand why pedagogy was allotted so little attention in the curricula of those early normal schools.

Following the Civil War, the influence of Pestalozzi (1746-1827) and the object lessons, Froebel (1782-1852) who originated the Kindergarten (Zais, 1976), and Herbart (1776-1841) whose quest for scientific pedagogy produced a five part methodological doctrine of teaching (Power, 1969), began to filter into American thought and practice. Americans who had

studied in Europe, upon return to the United States began to champion the concepts and principles of these European educators. To illustrate, Charles McMurry became a proponent of Herbartian doctrine while studying at the University of Jena in Germany. After returning to the United States, McMurry wrote thirty books and prepared a course of study for the elementary grades describing how to select ideas for teaching (McNeil, 1981). Yet at the end of the nineteenth century, the curricula of normal schools were devoted largely to upgrading the academic knowledge of teaching candidates with pedagogical principles receiving secondary emphasis.

After 1900, there was a movement to change the name of normal schools to teachers colleges as the curricula expanded to four years in an attempt to further academic studies and status of teacher education (Campbell, 1975). Typically, these teachers colleges developed and refined their pedagogical content based on the cumulated wisdom and experience of practicing teachers. It remained for universities to develop the following fields of inquiry which became the essential elements of present day teacher education programs, i. e., educational psychology, educational research, curriculum development, educational philosophy, educational sociology, comparative education, and human development (Haberman,1984). Not surprisingly, expansion of academic fields occurred with equal vitality during this century

thus assuring an unabated tension between academic and pedagogical content proponents. Each vying for increased emphasis in the curriculum for preparing teachers. An expected response to this knowledge explosion has been to extend the preparation of teachers from four to five or more years. While advocates for extended programs have presented their position very well, the prospect of a nationwide teacher shortage has cast doubt on the merits of this solution. An alternative for accommodating the above mentioned knowledge explosion is to seriously consider the decision-rules for determining the scope of a teacher preparation curriculum. This thought brings us to the purpose of this paper, which is to examine alternate decision-rules for selecting and organizing pedagogical content for teacher preparation programs. In structuring a paper which addresses this purpose, three sources of pedagogical content have been selected, i. e., empirical evidence, experience, and theory.

Empirical Evidence

Soltis (1984) notes that educational researchers have imitated methods and form of the natural sciences while seeking knowledge, legitimacy and status. This phenomena has resulted in language and logic of the positivist tradition being imbued in educational theory and practice. Fortunately some latitude has

been accepted in this orientation of late allowing naturalistic descriptions, survey efforts, and correlation studies to be included along side classical control-treatment group experiments in yielding creditable findings to the literature. Process-Product research in teacher education, which incorporates these methodologies, is currently being reviewed by teacher education policy makers seeking defensible, that is, empirically supported, concepts, principles and skills for their curricula. Fry, Smith and Wilson (1984) indicate that a research-validated knowledge base on effective teaching is the basis for the Florida Beginning Teacher Program and the Florida Performance Measurement System. Other writers (Guyton, 1984; Haberman, 1984; Evertson, Hawley and Zlotnik, 1984) are suggesting that sufficient research evidence is now available to guide educational practice in a number of skills. Table 1 presents a summary of these topics.

One organizational scheme for sequencing these empirically based topics into a teacher preparation curriculum is represented by the following content taxonomy (table 2). The basis for sequencing exhibited in this content map is linked with the order of occurrence of teaching processes. Certainly other bases for sequencing these elements are equally appropriate.

Experience

The precendent for using experience as the basis for selecting content for pedagogy is well documented. As noted previously early normal schools relied extensively on the knowledge and judgement of teachers who shared their craft with teaching apprentices under their tutelage. However, Haberman (1984) notes that the ultimate criterion for evaluating experiental knowledge depends on the competence, judgement and wisdom of the individual whose "experience" is being fashioned into a curriculum. When experience is accepted as valuable, it is an acceptance of the individual's expertise. Therefore, a curriculum for teacher preparation based on experience in this sense is also one based on expert opinion. Techniques for developing such a curriculum include reviewing existing teacher education program curricula and recording common elements across programs. Those content elements occurring with highest frequency would then be analyzed to determine the reason or reasons for their inclusion. It is likely that in nearly every instance those curricular components had been selected on the basis of the curriculum developers' experience, whether vicarious or direct.

A second approach for developing an experience based content structure would be to conduct a Delphi Study with expert teacher educators. The final content elements selected by this process

would have survived multiple inclusion/exclusion decisions by the same experts. The following content map (Table 3) presents an example of a content map developed by this approach. The basis used for sequencing these topics from left-to-right in table 3 is linked to the frequency of application of related skills by teaching candidates.

Theory

Constructs from psychology, sociology, and philosophy represent other sources of content for pedagogy. For example, principles derived from psychology and learning theory in particular, have influenced: strategies for encoding and retrieving information, techniques of reinforcement used for cognitive learning and social control, the use of role models to associate attitudes to ideas, approaches used to motivate and maintain interest. These instances represent but a fraction of learning theory applications in a structured instructional setting. Similarly, principles from human development have substantially influenced the scope and sequence of early childhood and elementary education curricula.

Theories and principles from sociology and organizational science which explain how individuals behave in groups and

particular social settings certainly are worthy content for teaching candidates. Sociological principles related to the role of the teacher, how teachers are influenced by their peer groups in the workplace, the influence of administrative styles on teachers, and the impact of the community on the professional life of the teacher reflect the range of professional issues addressed by this discipline. Further, social institutions such as schools have qualities which affect people who are employed by the institution. To understand the behavior of individual teachers, often the optimal approach is to examine the qualities of a school rather than the individual teachers who work there.

In any teaching encounter, there are philosophical principles and values evident in the choice of subject matter, as well as in the selection and implementation of instructional strategies. The results of teaching can be evaluated not only in terms of quantity of what is learned but the quality of the learnings as well. Soltis (1984) urges that relevant standards and norms for the qualitative and ethical dimensions of teaching be determined. Currently, this normative dimension of teaching gets little systematic and thoughtful attention yet it continues to influence education just the same. Developing a content structure for teaching based on theory would certainly incorporate these dimensions. The following table (table 4) represents a taxonomy whose components have been identified from extant theory which

affects teaching. Topics have been clustered by discipline; however, no basis for sequencing the order of topical presentation is suggested.

Summary

This paper has presented three bases or decision rules for selecting content for pedagogy. These bases phrased as decision-rules are : in order to be considered as viable content for a teacher preparation program, the concept, principle or process : (1) must be related to student growth as revealed by empirical evidence; or (2) must be identified as a necessary curricular component by expert opinion based on experience; or (3) must be logically explained by a theory of social science. Examples of content-maps resulting from the execution of each of these rules were presented to illustrate the nature of content resulting from each decision-rule. Certainly these content maps are not exhaustive in their treatment of topics nor are the maps mutually exclusive; witness the occurrence of the topics classroom management, communication, leadership and diagnosis across the maps. This content overlap is logical given the interaction of theory and empirical evidence from the philosophical reasoning of Locke, where evidence precedes theory, or Kant, who posited that data and some underlying theory provide the basis for sound

propositions (Mitroff and Turoff, 1975). Further, expert opinions of teacher educators were influenced by their experience with research literature, their research programs, and their study of the professional literature of the social sciences.

Perhaps a consolidation of the three maps would represent the most desired content structure of pedagogy. By fusing the maps, the validation of teacher education curricula perhaps would depend upon the content being included by two or all three of the dicision rules. Efforts of this nature may ultimately result in a defensible logic for the scope and sequence of curricular elements in teacher education.

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Table 1

Summary of Empirically Supported Topics for Teacher Education

Florida Performance Measurement System	Evertson, Hawley Zlotnik	Berliner*	Hunter*	Haberman
Managment of Student Conduct	Academic Learning Time	Time on Task	Learned Time and Effort on Task	Classroom Management
Instructional Organization and Development	Organization and Management of Classroom	Class Organization Management	Objectives Effective Direct Teaching	Direct Instruction
Presentation of Subject Matter	Interactive Teaching Strategies	Monitoring	Monitoring	
Communication	Teacher Expectations	Expectations		Teacher Expectations
Testing	Reward Structures	Problem Assignments	Decision Making	

*Obtained from Guyton, E. (1984). Curriculum reform: the crisis in teacher education, Action in Teacher Education, 6:3, 7-15.

Table 2

Example of Content Elements Selected for Content Structure of Pedagogy Based on Empirical Evidence

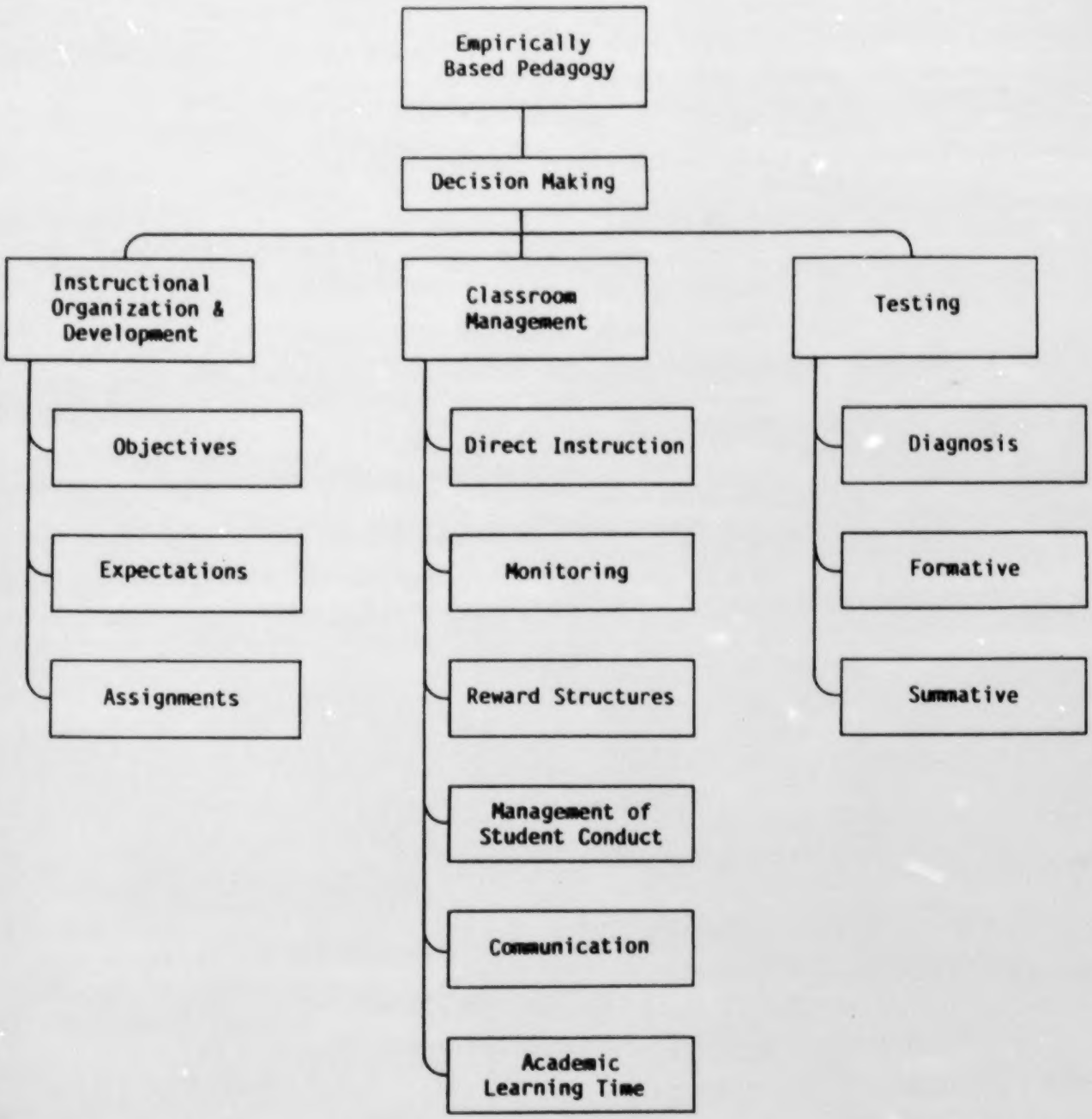

Table 3

Example of Content Elements Selected for Content Structure of Pedagogy Based on Experience

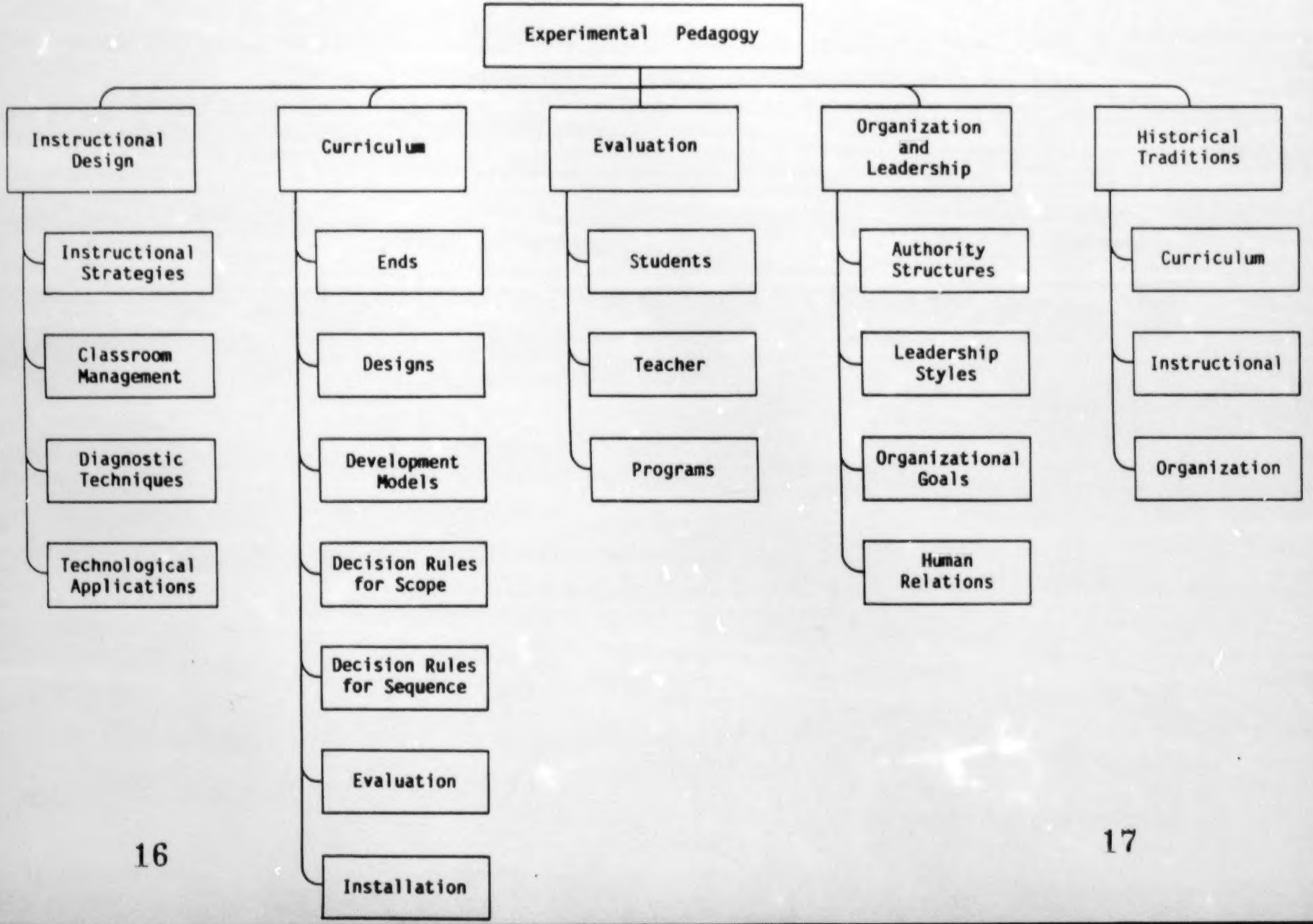

Table 4

Example of Content Elements Selected for Content Structure of Pedagogy Based on Theory